

AMENDMENTS

In the Claims

The following is a marked-up version of the claims with the language that is underlined (“ ”) being added and the language that contains strikethrough (“~~—~~”) being deleted:

1. (Original) A method for cooling a computer system, the computer system having a processor and a fan, said method comprising:
 - determining a temperature threshold for operating the fan at greater than low speed;
 - determining a temperature of the computer system; and
 - throttling the processor if the temperature corresponds to the temperature threshold for operating the fan at greater than low speed.
2. (Original) The method of claim 1, further comprising:
 - determining a high-temperature threshold for the computer system; and
 - beginning the throttling of the processor prior to the temperature of the computer system exceeding the high-temperature threshold.
3. (Original) The method of claim 2, further comprising:
 - operating the fan at greater than low speed if the throttling is inadequate to maintain the temperature of the computer system below the high-temperature threshold.
4. (Original) The method of claim 2, wherein the high-temperature threshold for the computer system is a high-temperature threshold for the processor.

5. (Original) The method of claim 2, wherein the fan is a continuously variable fan; and wherein operating the fan at greater than low speed involves operating the fan at a highest speed of the fan.

6. (Original) A method for cooling a computer system, the computer system having a processor and a fan, said method comprising:

operating the fan at a first acoustic level;

determining power usage of the computer system;

throttling the processor if the power usage corresponds to operating the fan at an increased acoustic level such that the processor is throttled to cool the computer system prior to operating the fan at the increased acoustic level.

7. (Original) The method of claim 6, further comprising:

operating the fan at the increased acoustic level if the throttling is inadequate to maintain the temperature of the computer system below a temperature threshold for operating the fan at the increased acoustic level.

8. (Original) The method of claim 6, wherein determining the power usage of the computer system comprises determining a temperature of the computer system.

9. (Original) The method of claim 6, wherein:

the operating, determining and throttling are associated with a reduced-acoustic mode of operation; and

the method additionally comprises:

operating the computer system in a normal-acoustic mode of operation in which the fan is operated at the increased acoustic level for cooling the computer system instead of throttling the processor.

10. (Original) A computer system comprising:

a processor;

a fan operative to provide cooling airflow for reducing a temperature of the processor, the fan having a temperature threshold corresponding to operation of the fan at a speed greater than low speed; and

a temperature-monitoring unit operative to determine a temperature of the computer system and to throttle the processor if the temperature corresponds to the temperature threshold for operating the fan at greater than low speed.

11. (Original) The system of claim 10, wherein:

the processor has a temperature sensor operative to generate a signal indicative of a temperature of the processor; and

the temperature-monitoring system receives the signal generated by the temperature sensor for determining the temperature of the computer system.

12. (Original) The system of claim 10, wherein the temperature sensor is a thermal diode.

13. (Original) The system of claim 10, wherein the temperature-monitoring unit throttles the processor by providing a signal corresponding to a pulse width modulation output of the temperature-monitoring unit to the processor.

14. (Original) The system of claim 13, further comprising:
an inverter arranged to receive the pulse width modulation output of the temperature-monitoring unit such that the processor receives the inverse of the pulse width modulation output.
15. (Original) The system of claim 10, further comprising:
means for throttling the processor.
16. (Original) The system of claim 10, wherein the temperature-monitoring unit is selectively operative in one of a reduced-acoustic mode and a normal-acoustic mode such that:
in the normal-acoustic mode, the temperature-monitoring unit attempts to control the temperature of the computer system by adjusting the speed of the fan; and
in the reduced-acoustic mode, the temperature-monitoring unit attempts to control the temperature of the computer system by throttling the processor.
17. (Original) The system of claim 16, wherein, in the normal-acoustic mode, if the temperature-monitoring unit is unable to control the temperature of the computer system by adjusting the speed of the fan, the temperature-monitoring unit also throttles the processor.
18. (Original) The system of claim 16, wherein, in the reduced-acoustic mode, if the temperature-monitoring unit is unable to control the temperature of the computer system by throttling the processor, the temperature-monitoring unit also adjusts the speed of the fan.

19. (Original) A system for cooling a computer system, the computer system having a processor and a variable-speed fan, said system comprising:

a power-monitoring unit comprising:

logic configured to determine a temperature threshold for operating the fan at greater than low speed;

logic configured to determine a temperature of the computer system; and

logic configured to throttle the processor if the temperature corresponds to the temperature threshold for operating the fan at greater than low speed.

20. (Original) The system of claim 19, wherein the power-monitoring unit is embodied on a computer readable medium.

21. (Original) A computer system comprising:

a processor;

a fan for cooling the processor;

means for determining a temperature threshold for operating the fan at greater than low speed;

means for determining a temperature of the computer system; and

means for throttling the processor if the temperature corresponds to the temperature threshold for operating the fan at greater than low speed.

22. (Original) A computer system comprising:

a processor;

a fan for cooling the processor;

means for determining power usage of the computer system; and

means for throttling the processor if the power usage corresponds to operating the fan at an increased acoustic level such that the processor is throttled to cool the computer system prior to operating the fan at the increased acoustic level.